

REMARKS

In the last Office Action, claims 5, 6 and 44-46 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement insofar as relates to movement of the trolley/spreader hoist 6a in a transverse direction across the axis of the pier 14. The drawings were objected to under 35 U.S.C. §1.83(a) as failing to show the manner in which the trolley/spreader hoist is displaceable both lengthwise and widthwise of its boom.

Claims 3, 11-17, 19-24, 26-46 and 48-50 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention for reasons specified by the Examiner.

Claims 4, 7-10 and 47 were withdrawn from further consideration as being directed to a non-elected species. The Examiner stated that the elected species of Fig. 1 does not show the second trolley/spreader hoist 6a arranged to load containers onto over-the-ground vehicles of the type recited in claims 4, 7-10 and 47.

Claims 1-3, 5, 6, 11-46 and 48-50 were rejected under 35 U.S.C. §§102 and 103 as unpatentable over Fantuzzi, Tax et al. ("Tax"), Mordaunt et al. ("Mordaunt"), JP 9-255282, Watatani, Hulett, Van De Waal, Lubbers,

Montgomery et al. ("Montgomery"), Freidman and Vaughn, either individually or in various combinations.

In accordance with this amendment, claims 1-4, 8-12, 26-28 and 43 have been amended to more particularly point out and distinctly claim the novel features of applicant's invention so as to avoid an incidental or strained reading of the prior art on the claims. The specification has been amended to correct minor informalities and to provide a direct antecedent basis for the claim terminology. The amendments made to the specification and claims find full support in the original disclosure, and no new matter has been introduced.

Request for Withdrawal of Finality of Office Action

The application was originally filed with claims 1-2, and these claims were rejected as unpatentable over either Fantuzzi or Tax in the first Office Action mailed September 11, 2002. When responding to the Office Action, claims 1-2 were not amended and the prior art rejections were traversed. By supplemental response, new claims 3-50 were added of which claims 3-25 depend either directly or indirectly on original unamended claims 1-2 (claims 26-50 do not depend on claims 1-2).

In the Office Action mailed June 1, 2005, unamended claims 1-2 were again rejected as unpatentable over Fantuzzi and Tax, and new dependent claims 3, 5-6 and 11-25 which

depend on claims 1-2 were rejected on multiple prior art grounds as unpatentable over newly cited references to Mordaunt, JP 9-255282, Watatani, Hulett, Van De Waal, Lubbers, Montgomery, Freidman and Vaughn though these new references were not explicitly applied against original unamended claims 1-2. The rejection of these dependent claims on references not used to reject base claims 1-2 is absolutely improper and was done to avoid making new grounds of rejection against unamended claims 1-2, which would have precluded making the action final.

As set forth in MPEP §706.07(a):

Furthermore, a second or any subsequent action on the merits in any application ... will not be made final if it includes a rejection, on newly cited art, ... of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art.

By statute, a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers (35 U.S.C. §112, fourth paragraph). Dependent claims 3, 5-6 and 11-25 include all the limitations of independent claim 1 and, in some cases, dependent claim 2 as well. It is axiomatic that a dependent claim cannot be rejected on prior art references unless the underlying base claim is also rejected on one or more of the same prior art references. Therefore the multiple rejections

of dependent claims 3, 5-6 and 11-25 on the newly cited references necessarily include multiple rejections of underlying claims 1-2 on these references. Stated otherwise, the Examiner has implicitly rejected unamended claims 1-2 as unpatentable over the newly cited references by virtue of having rejected dependent claims 3, 5-6 and 11-25 as unpatentable over the new references. As the rejections of unamended claims 1-2 on the newly cited references were not necessitated by any claim amendments made by applicant, the Office Action cannot properly be made final. Therefore the finality of the Office Action is premature and should be withdrawn.

Moreover, applicant's response to the first Office Action was filed by mailing certificate dated March 11, 2003 and the supplemental response adding new claims 3-50 was filed by facsimile on April 14, 2003. More than two years later, the June 1, 2005 Office Action was mailed. This inordinate delay coupled with the fact that applicant is 78 years of age makes the premature finality of the Office Action unfair and subjects applicant to unnecessary expense and delay in having to file a Request for Continued Examination in order to pursue his application in the event this amendment is not entered.

For all the foregoing reasons, applicant respectfully requests withdrawal of the finality of the Office Action.

Traversal of Rejection Under 35 U.S.C. §112, First Paragraph and Drawing Objection Under 37 C.F.R. §1.83(a)

Claims 5, 6 and 44-46 were rejected as failing to comply with the written description requirement and the drawings were objected to as failing to show every feature of the invention specified in the claims with respect to displacement of the trolley/spreader hoist 6a in the widthwise direction of the boom 3. Applicant respectfully traverses this rejection and objection.

The Examiner acknowledges that the specification describes that "the boom 3 should be wide enough to accommodate a machine trolley/spreader hoist 6a capable of moving the containers 8 both in a transverse direction across the axis of the pier 14, and also longitudinally (parallel to the axis of the pier 14)." It is, as described in the specification, the width of the boom 3 that enables the trolley/spreader hoist 6a to move in the widthwise or transverse direction of the boom 3. By way of example, the boom 3 may have a double-leg structure, such as shown in Fig. 8 of Mordaunt, which provides sufficient space between the two legs of the boom to accommodate widthwise displacement of the trolley/spreader hoist 6a.

As the drawings show the boom 3 and the written description describes that the boom 3 is wide enough to accommodate displacement of the trolley/spreader hoist 6a in

the widthwise direction of the boom 3, the drawings are in compliance with 37 C.F.R. §1.83(a) and the written description complies with 35 U.S.C. §112, first paragraph.

**Traversal of Indefiniteness Rejection
Under 35 U.S.C. §112, Second Paragraph**

Applicant respectfully traverses the rejection of claims 3, 11-17, 19-24, 26-46 and 48-50 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. In response to this rejection, claim 11 has been amended to provide an antecedent basis for "the trolley/spreader hoist" of the sibling crane thereby overcoming this ground of rejection. In all other respects, applicant traverses the rejection and submits that the claims are in full compliance with 35 U.S.C. §112, second paragraph.

The primary purpose of the "particularly point out and distinctly claim" requirement is to ensure that the scope of the claims is clear so that the public is informed of the boundaries of what constitutes infringement of the patent. A secondary purpose is to provide a clear measure of what applicant regards as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability. See, MPEP §2173. The test for definiteness under 35 U.S.C. §112, second paragraph, is

whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 1 USPQ2d 1081, 1088 (Fed. Cir. 1986).

In the case of claim 3, the Examiner states that the term "the over-the-ground vehicles" lacks antecedent basis, however, the Examiner acknowledges that base claim 1 recites "a sibling crane...for loading containers from the first platform onto over-the-ground vehicles." Hence the lack of antecedent basis objection is not understood, as claim 1 provides the required antecedence. The fact that claim 1 recites the function of the sibling crane does not render either claim 1 or claim 3 indefinite, and it is perfectly permissible to recite functional limitations in a claim. See, for example, In re Swinehart, 169 USPQ 226 (CCPA 1971); Ex parte Bylund, 217 USPQ 492,498 (BPAI 1981) ("...functional language in the claims must be given full weight and may not be disregarded in evaluating the patentability of the subject matter defined employing such functional language").

Moreover, claim 3 further limits claim 1 by limiting the over-the-ground vehicles to railroad cars. This is a further limitation of the subject matter recited in claim 1, which is all that is required by 35 U.S.C. §112, fourth paragraph. There is no requirement that a dependent claim

recite a structural feature of a claimed combination of elements -- only that it recite a further limitation. As claim 3 unquestionably meets the threshold requirements of clarity and precision and makes clear the boundaries of the subject matter for which protection is sought, the claim is in compliance with the definiteness requirement 35 U.S.C. §112, second paragraph. The same reasoning applies to the indefiniteness rejection of claims 12, 15-17, 19, 21-24, 30, 33-35, 37, 39-42 and 50, all of which particularly point out and distinctly claim the subject matter of the invention in the manner required by 35 U.S.C. §112, second paragraph.

With respect to claims 11, 13, 20, 26-29, 38 and 49, the Examiner contends that these claims are indefinite because the wording "crane is displaceable lengthwise along the foundation" is unclear as to whether lengthwise refers to the length of the crane or the length of the foundation. Applicant respectfully submits that the claim language is perfectly clear and can only be interpreted as referring to the length of the foundation. The expression "lengthwise along the foundation" means, and can only mean, along the length of the foundation. By comparison, the expression "lengthwise along the crane" would mean along the length of the crane.

In view of the foregoing, applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. §112, second paragraph.

Traversal of Prior Art Rejections
Under 35 U.S.C. §§102 and 103

The present invention pertains to a crane apparatus installed on a foundation extending into water for directly transshipping containers from a vessel moored alongside the foundation to another transportation mode without necessity of ground placement of the containers. With reference to the embodiment shown in Fig. 1, the crane apparatus comprises a parent crane 1 displaceable lengthwise along a foundation 14 on a ground level trackway for unloading containers 8 from a vessel A moored alongside the foundation and placing the containers on a platform 12 affixed to a part of the parent crane 1. A sibling crane 4 is displaceable lengthwise along the foundation 14 at ground level beneath the parent crane 1, independently of displacement of the parent crane, for loading containers 8 from the platform 12 onto over-the-ground vehicles C1, C2 and D. The crane apparatus directly transships the containers 8 from the vessel A to another transportation mode C1, C2 or D without placement of the containers on the ground. In this manner, the direct transfer

of containers is achieved within the shortest possible cycle distance of the containers and in the shortest possible cycle time.

Independent claims 1 and 26 include, inter alia, the following recitations:

(1) A parent crane displaceable on a ground level trackway;

(2) The parent crane unloading containers from a vessel and placing them on a platform affixed (claim 1) or connected (claim 26) to a part of the parent crane;

(3) A sibling crane displaceable lengthwise along the foundation at ground level beneath the parent crane for loading containers from the platform onto over-the-ground vehicles; and

(4) The sibling crane being displaceable independently of displacement of the parent crane.

The combined teachings of the prior art references do not disclose, suggest or render obvious independent claims 1 and 26 and the claims dependent thereon.

Fantuzzi, which was applied against claims 1 and 26, discloses a crane apparatus installed on a foundation 28 for directly transshipping containers 7 from a vessel 6 to another transportation mode without necessity of ground placement of the containers. The crane apparatus comprises a parent crane

1 that unloads the containers 7 and places them on shuttle trolleys 8 which shuttle the containers to a location where they can be transferred by a sibling crane 14 for loading the containers onto over-the-ground vehicles such as lorries 16. For ease of conceptualizing the overall crane apparatus disclosed by Fantuzzi, a perspective drawing showing the Fantuzzi crane apparatus disclosed in Figs. 1 and 3 is annexed hereto. The Fantuzzi crane apparatus does not include features (1), (2) and (3) required by independent claims 1 and 26.

In Fantuzzi, the parent crane 1 is not displaceable on a ground level trackway, but rather is displaceable on rails 11 which are situated at the top of a fixed longitudinal frame 10. The rails 11 are elevated above ground level, which is indispensable in the Fantuzzi crane apparatus. The parent crane 1 does not place the containers 7 on a platform affixed or connected to a part of the parent crane and instead, places the containers on mobile shuttle trolleys 8 which are not affixed to a part of the parent crane. Lastly, the sibling crane 14 of Fantuzzi is not displaceable lengthwise along the foundation at ground level beneath the parent crane 1, but rather is displaceable widthwise along the foundation at an elevated level, and the sibling crane 14 is not displaceable beneath the parent crane 1. While the parent crane 1 is

displaceable lengthwise along the foundation over the sibling crane 14, the sibling crane 14 itself is not displaceable beneath parent crane. As Fantuzzi does not disclose or suggest features (1), (2) and (3) recited in independent claims 1 and 26, Fantuzzi does not anticipate or render obvious these claims.

Tax, which was applied against claim 1, discloses a crane apparatus having a parent crane with a crane bridge 16 for transferring containers 22 from a vessel to a conveyor unit 64 which transfers the containers to a sibling crane 66 for loading the containers onto tracks 68. The Tax crane apparatus does not include features (2), (3) and (4) required by independent claims 1 and 26.

In Tax, the parent crane places the container 22 on mobile conveyor units 64 each of which comprises a conveyor platform 64o1 which is conveyed in the direction W/L by rollers 64o2 driven by a drive, such as an electric motor 64o4. The mobile conveyor units 64 do not constitute a platform affixed or connected to a part of the parent crane. Further, the sibling crane 66 is not displaceable lengthwise along the foundation 12 at ground level, but rather is displaceable widthwise of the foundation at an elevated level. Additionally, the sibling crane 66 is not displaceable independently of the displacement of the parent crane, but

rather is affixed to the parent crane and moves conjointly therewith as the parent crane moves lengthwise along the foundation. Thus Tax does not disclose, suggest or render obvious independent claims 1 and 26.

Mordaunt, which was applied against claim 26, discloses a crane apparatus having a parent crane 81 displaceable on a ground level trackway for unloading containers from a vessel and placing them on a platform consisting of one of several transverse tracks 88. A sibling crane, such as the straddle vehicle shown in Figs. 5-6, is displaceable along the tracks 88 for picking up a container on one of the tracks 88 after which the sibling crane travels to a transfer track 89 where it is transferred to a high level support on that track and moves inwardly along the track 89 back onto a trackway 15 (column 10, lines 32-42). Mordaunt does not disclose features (3) and (4).

In Mordaunt, the sibling crane is not displaceable at ground level beneath the parent crane, but rather is displaceable along the elevated tracks 88. In addition, the sibling crane is not displaceable independently of displacement of the parent crane, but rather rides on the trackways 88 and 89 which are connected to and move conjointly with the parent crane 81 as the parent crane travels lengthwise along the foundation. Therefore Mordaunt does not

disclose, suggest or render obvious independent claims 1 and 26.

JP 9-255282 ("JP '282"), which was applied against claim 26, insofar as understood from the drawings, discloses a crane apparatus comprising a parent crane b displaceable on a ground level trackway for unloading containers from a vessel and placing the containers on a platform e, and a sibling crane c separate from the parent crane b and displaceable along the foundation, independently of the displacement of the parent crane, for loading containers directly from the platform e to over-the-ground vehicles h. JP '282 does not disclose features (2) and (3).

In the crane apparatus of JP '282, the platform e shown in Fig. 8 is spaced apart from and not connected to the parent crane b, and the sibling crane c is clearly not displaceable lengthwise along the foundation beneath the parent crane, but rather is displaceable alongside the parent crane b. Accordingly, JP '282 does not disclose, describe or render obvious independent claims 1 and 26.

Watatani, which was not applied against either of claims 1 or 26, discloses a crane apparatus having a parent crane A displaceable on a ground level trackway for unloading containers 3 from a vessel and placing them on a platform 5 fixed to a part of the parent crane A. An auxiliary crane

(sibling crane) 1 is connected to the parent crane A (see Fig. 1) for loading containers 3 from the platform 5 to over-the-ground vehicles. Watatani does not disclose features (3) and (4) recited in independent claims 1 and 26.

In Watatani, the sibling crane 1 is not displaceable lengthwise along the foundation at ground level beneath the parent crane A. Instead, the sibling crane 1 is displaceable widthwise along the foundation at an elevated level. Moreover, as shown in Fig. 1, the sibling crane 1 is not displaceable independently of displacement of the parent crane A, but rather the sibling crane 1 is connected to and moves conjointly with the parent crane A during displacement of the parent crane lengthwise along the foundation. Though Watatani describes at column 6, lines 15-22, that the sibling crane (auxiliary loading machine) may be a separate unit from the container crane A, such does not mean that the two cranes do not move in unison or that movement of the parent crane is not accompanied by movement of the sibling crane. In any event, even if the sibling crane could be displaced independently of displacement of the parent crane, such displacement would be widthwise -- not lengthwise -- along the foundation. Accordingly, Watatani does not disclose, describe or suggest the subject matter of independent claims 1 and 26.

Hulett, which was applied against claim 26, discloses a crane apparatus having a parent crane 1 displaceable lengthwise along a foundation for unloading containers from a vessel and placing the containers on a warehouse floor, and a sibling crane 17 not fixed to the parent crane 1 and displaceable lengthwise along the foundation beneath the parent crane 1 for loading containers from the warehouse floor to over-the-ground vehicles, such as the cart shown inside the warehouse in Fig. 1. Hulett does not disclose features (1), (2) and (3) recited in independent claims 1 and 26.

In Hulett, the parent crane 1 is displaceable along elevated rails 5 -- not displaceable on a ground level trackway. The parent crane 1 of Hulett does not place the containers unloaded from the vessel on a platform affixed or connected to a part of the parent crane, but rather places the containers on the warehouse floor. Lastly, the sibling crane 17 of Hulett is not displaceable lengthwise along the foundation at ground level beneath parent crane 1, but rather is displaceable along elevated rails supported by supports 4 which also support the rails 5. Accordingly, Hulett does not disclose, describe or suggest the crane apparatus recited in independent claims 1 and 26.

Montgomery, which was applied against claim 26, discloses a crane apparatus having a parent crane C displaceable lengthwise along a foundation for unloading containers from a vessel D and placing them on a conveyor A, and a sibling crane B displaceable lengthwise along the foundation for loading containers from the conveyor A to a yard storage area 35. Montgomery does not disclose features (2) and (3) required by independent claims 1 and 26.

In Montgomery, the parent crane C places containers removed from the vessel D onto a motorized conveyor A (column 6, lines 50-62) which, in one embodiment, is hinged by a hinged connection 46 to the parent crane C. The motorized conveyor A does not constitute a platform affixed or connected to a part of the parent crane C. Moreover, the sibling crane B is not displaceable beneath the parent crane as in the present invention, but rather is displaceable alongside the parent crane. Further, the parent crane B does not load containers from the conveyor A onto over-the-ground vehicles, but rather loads the containers in a yard storage area 35. Thus Montgomery does not disclose, describe or render obvious the subject matter of independent claims 1 and 26.

The references to Van De Waal, Lubbers, Friedman, Vaughan and Travell have been cited and applied for their teaching of features in particular dependent claims. However, none of these references, whether considered alone or in

combination with any of the other references, disclose or suggest the crane apparatus recited in independent claims 1 and 26.

Lastly, applicant notes that the Examiner has made multiple and cumulative prior art grounds of rejection against independent claim 1 (both explicitly and implicitly) and 26 as well as many dependent claims. This is contrary to the PTO policy set out in MPEP §706.02(I), which explicitly states that prior art rejections should ordinarily be confined strictly to the best available art and that merely cumulative rejections should be avoided. In the event a further Office Action is issued, applicant respectfully requests that the Examiner apply only the best available prior art to the claims and refrain from making cumulative prior art rejections.

In view of the foregoing, the application is now believed to be in allowable form. Accordingly, favorable reconsideration and entry of this amendment together with either allowance of the application or withdrawal of the finality of the Office Action are respectfully requested.

Respectfully submitted,

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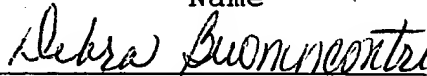
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Date

Fantuzzi "226"

